WHAT IS CLAIMED IS:

1. A pressable explosive composition, comprising:

substantially uncoated fuel particles constituting at least 40 weight percent of the pressable explosive composition;

a nitramine mechanically blended with the substantially uncoated fuel particles; and

a binder coating the nitramine.

2. A pressable explosive composition according to claim 1, wherein the binder constitutes about 1 to about 6 weight percent of the pressable explosive composition.

3. A pressable explosive composition according to claim 1, wherein the substantially uncoated fuel particles are selected from the group consisting of aluminum, magnesium, magnalium, and combinations thereof.

4. A pressable explosive composition according to claim 1, wherein the substantially uncoated fuel particles constitute about 50 to about 70 weight percent of the pressable explosive composition.

5. A pressable explosive composition according to claim 1, wherein the substantially uncoated fuel particles constitute about 60 to about 70 weight percent of the pressable explosive composition.

6. A pressable explosive composition according to claim 1, wherein the substantially uncoated fuel particles have an average particle diameter of about 1 micron to about 5 microns.

7. A pressable explosive composition according to claim 1, wherein the nitramine comprises a member selected from HMX and RDX.

8. A pressable explosive composition according to claim 1, further comprising an ionic salt oxidizer coated with the binder.

9. A pressable explosive composition according to claim 7., wherein the substantially uncoated fuel particles, the nitramine, and the ionic salt oxidizer collectively constitute from about 92 weight percent to about 99 weight percent of the pressable explosive composition.

10. A pressed thermobaric explosive, comprising:

free fuel particles constituting at least 40 weight percent of the pressed thermobaric explosive;

a nitramine mechanically blended with the free fuel particles; and

a binder coating the nitramine.

11. A pressed thermobaric explosive according to claim 10, wherein the binder constitutes about 1 to about 6 weight percent of the pressed thermobaric explosive.

12. A pressed thermobaric explosive according to claim 10, wherein the free fuel particles are selected from the group consisting of aluminum, magnesium, magnalium, and combinations thereof.

13. A pressed thermobaric explosive according to claim 10, wherein the free fuel particles constitute about 50 to about 70 weight percent of the pressed thermobaric explosive.

14. A pressed thermobaric explosive according to claim 10, wherein the free fuel particles constitute about 60 to about 70 weight percent of the pressed thermobaric explosive.

15. A pressed thermobaric explosive according to claim 10, wherein the free fuel particles have an average particle diameter of about 1 micron to about 5 microns.

16. A pressed thermobaric explosive according to claim 10, further comprising an ionic salt oxidizer coated with the binder.

17. A pressed thermobaric explosive according to claim 16, wherein the free fuel particles, the nitramine, and the ionic salt oxidizer constitute from about 92 weight percent to about 99 weight percent of the pressed thermobaric explosive.

18. A pressed thermobaric explosive according to claim 10, wherein the pressed thermobaric explosive has an equal or lesser electrostatic discharge sensitivity than RDX.

19. A pressed thermobaric explosive according to claim 10, wherein the pressed thermobaric explosive has a frictional sensitivity less than 235 psig as measured by an ABL sliding friction test.

20. A pressed thermobaric explosive according to claim 10, wherein the pressed thermobaric explosive has a frictional sensitivity less than 420 psig as measured by an ABL sliding friction test.

21. A pressed thermobaric explosive according to claim 10, wherein the pressed thermobaric explosive has a compressive strength greater than 42,000 psi.

22. A pressed thermobaric explosive according to claim 10, wherein the pressed thermobaric explosive has a compressive strength greater than 45,000 psi.

23. A pressed thermobaric explosive according to claim 10, wherein the pressed thermobaric explosive has a compressive strength greater than 50,000 psi.

24. An article of manufacture comprising a pressed thermobaric explosive, the pressed thermobaric explosive comprising at least 40 weight percent of free fuel particles, a nitramine mechanically blended with the free fuel particles, and binder coating the nitramine.

25. An article of manufacture according to claim 24, wherein the binder comprises about 1 to about 6 weight percent of the pressed thermobaric explosive.

26. An article of manufacture according to claim 24, wherein the article comprises a projectile comprising a warhead containing the pressed thermobaric explosive, a motor comprising a case and a propellant housed in the case, and a nozzle assembly associated with the motor for generating thrust and propelling the warhead.

27. An article of manufacture according to claim 24, wherein the article comprises a hand grenade.

28. An article of manufacture according to claim 24, wherein the free fuel particles are selected from the group consisting of aluminum, magnesium, magnalium, and combinations thereof.

29. An article of manufacture according to claim 28, wherein the free fuel particles constitute about 50 to about 70 weight percent of the pressed thermobaric explosive.

30. An article of manufacture according to claim 28, wherein the free fuel particles constitute about 60 to about 70 weight percent of the pressed thermobaric explosive.

31. An article of manufacture according to claim 28, wherein the free fuel particles have an average particle diameter of about 1 micron to about 5 microns.

32. An article of manufacture according to claim 28, further comprising an ionic salt oxidizer.

33. An article of manufacture according to claim 32, wherein the free fuel particles, the nitramine, and the ionic salt oxidizer constitute from about 92 weight percent to about 99 weight percent of the pressed thermobaric explosive.

34. A method for making an explosive composition, said method comprising:

coating a nitramine with a binder; and

mechanically mixing the coated nitramine with substantially uncoated fuel particles to provide a pressable explosive composition comprising at least 40 weight percent of the substantially uncoated fuel particles, and the binder.

35. A method according to claim 34, wherein the binder constitutes about 1 to about 6 weight percent of the pressable explosive composition.

36. A method according to claim 34, wherein the substantially uncoated fuel particles are selected from the group consisting of aluminum, magnesium, magnalium, and combinations thereof.

37. A method according to claim 34, wherein the substantially uncoated fuel particles constitute about 50 to about 70 weight percent of the pressable explosive composition.

38. A method according to claim 34, wherein the substantially uncoated fuel particles constitute about 60 to about 70 weight percent of the pressable explosive composition.

39. A method according to claim 34, wherein the substantially uncoated fuel particles have an average particle diameter of about 1 micron to about 5 microns.

40. A method according to claim 34, wherein the nitramine comprises a member selected from HMX and RDX.

41. A method according to claim 34, further comprising an ionic salt oxidizer coated with the binder.

42. A method according to claim 41, wherein the substantially uncoated fuel particles, the nitramine, and the ionic salt oxidizer collectively constitute from about 92 weight percent to about 99 weight percent of the pressable explosive composition.

43. A method according to claim 34, further comprising pressing the a pressable explosive composition into a shaped object.

44. A method for pressing a pressable explosive composition into a pressed thermobaric explosive, said method comprising:

providing a mold apparatus comprising a die having an inner surface defining side walls of a cavity, first and second rams movable relative to one another for defining opposite walls of the cavity, respectively, and first and second capture members;

situating a sample of the pressable explosive composition in the cavity of the mold apparatus;

positioning the first capture member between the first ram and the sample, and positioning the second capture member between the second ram and the sample; and

moving the first ram toward the second ram to press the pressable explosive composition into the pressed thermobaric explosive.

45. A method according to claim 44, wherein the side walls of the cavity are coated with grease.

46. A method according to claim 44, wherein a clearance exists between outer surfaces of the first and second rams and the side walls, and wherein the first and second capture members have peripheries in continuous contact with the side walls, providing a scraping action that prevents fine fuel particles from jamming the first and second rams.